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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

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Sheet 1

of

7

**Complete if Known**

Application Number

Filing Date

On even date herewith

First Named Inventor

Beka SOLOMON et al

Group Art Unit

1632

Examiner Name

Attorney Docket Number

SOLOMON=2B.2

**U.S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
	AA	US-5,688,651	11-18-1997	Solomon	
	AB	US-5,811,093	09-22-1998	MERRIL et al	
	AC	US-5,846,533	12-08-1998	PRUSINER et al	
	AD	US-6,211,149 B1	04-03-2001	CHESEBRO et al	
		US-			

**FOREIGN PATENT DOCUMENTS**

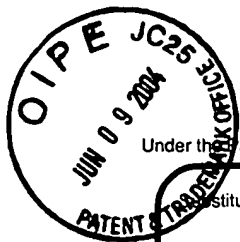
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				
	AE	EP 0 526 511 B1	03-26-1991	Molecular RX Inc		
	AF	WO 92/07077	04-30-1992	Perham & Willis		
	AG	WO 99/27944	10-06-1999	Schenk & Athena Neuro. Inc.		

**OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS**

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	AH	ARAP et al, "Steps toward mapping the human vasculature by phage display", <u>Nat Med</u> 8(2):121-127 (2002)	
	AI	BARINAGA M, "An Immunization Against Alzheimer's?", <u>Science</u> 285:175-176 (1999)	
	AJ	BARBAS et al, "Semisynthetic combinatorial antibody libraries: a chemical solution to the diversity problem", <u>Proc Natl Acad Sci USA</u> , 89(10):4457-4461 (1992)	
	AK	BARBAS et al, "Recombinant human Fab fragments neutralize human type 1 immunodeficiency virus <i>in vitro</i> ", <u>Proc Natl Acad Sci USA</u> , 89(19):9339-9343 (1992)	
	AL	BARBAS et al, "Assembly of combinatorial antibody libraries on phage surfaces: The gene III site", <u>Proc Natl Acad Sci USA</u> , 88(18):7978-7982 (1991)	
	AM	BARBAS et al, "Human monoclonal Fab fragments derived from a combinatorial library bind to respiratory syncytial virus F glycoprotein and neutralize infectivity", <u>Proc Natl Acad Sci USA</u> , 89(21):10164-10168 (1992)	

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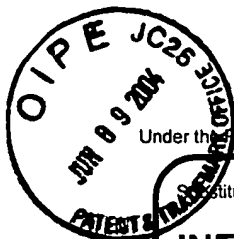
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		Group Art Unit	1632
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	AN	BREITLING et al, "A surface expression vector for antibody screening", <u>Gene</u> , 104:147-153 (1991)	
	AO	BURTION et al, "A large array of human monoclonal antibodies to type 1 human immunodeficiency virus from combinatorial libraries of asymptomatic seropositive individuals", <u>Proc Natl Acad Sci USA</u> , 88:10134-10137 (1991)	
	AP	CAI et al, "Screening and characterization of human single-chain Fv antibody against $\beta$ -amyloid peptide 40", <u>NeuroReport</u> 14(2):265-268 (2003)	
	AQ	CAMPBELL A, " $\beta$ -amyloid: friend or foe", <u>Med Hypotheses</u> 56(3):388-391 (2001)	
	AR	CESARENI et al, "Minireview Peptides display on filamentous phage capsids a new powerful tool to study protein ligand interaction", <u>FEBS Letters</u> , 307:66-70 (1992)	
	AS	CHANG et al, "Expression of antibody Fab domains on bacteriophage surfaces potential use for antibody selection", <u>J Immunol</u> , 147:3610-3614 (1991)	
	AT	CHECK E, "Nerve inflammation halts trial for Alzheimer's Drug", <u>Nature</u> 415:462 (2002)	
	AY	CLACKSON et al, "Letters to nature making antibody fragments using phage display libraries", <u>Nature</u> , 352:624- 628 (1991)	
	AV	DELMASTRO, et al, "Immunogenicity of filamentous phage displaying peptide mimotopes after oral administration", <u>Vaccine</u> , 15:1276-1285 (1997)	
	AW	DODART et al, "Immunization reverses memory deficits without reducing brain A $\beta$ burden in Alzheimer's disease model", <u>Nat Neurosci</u> 5(5):452-457 (2002)	
	AX	DODART et al, "Immunotherapy for Alzheimer's disease: will vaccination work?", <u>Trends Mol Med</u> 9(3):85-7 (2003)	
	AY	FRENKEL et al, "N-terminal EFRH sequence of Alzheimer's $\beta$ -amyloid peptide represents the epitope of its anti- aggregating antibodies", <u>J Neuroimmunol</u> , 88:85-90 (1998)	

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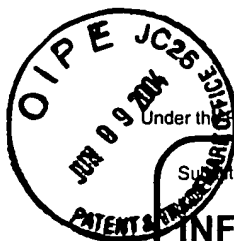
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		<b>Group Art Unit</b>	1632
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Sheet	3	of	7

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	AZ	DRAGHIA et al, "Gene delivery into the central nervous system by nasal instillation in rats", <u>Gene Ther</u> 2(6):418-423 (1995)	
	BA	ECK et al, "Gene-Based Therapy", in Goodman & Gilman's <u>The Pharmacological Basis of Therapeutics</u> , 9 <sup>th</sup> Ed., McGraw-Hill (1996), pp. 77-101	
	BB	FRENKEL et al, "Modulation of alzheimer's beta-amyloid neurotoxicity by site-directed single-chain antibody", <u>J Neuroimmunol</u> , 106:23-31 (2001)	
	BC	FRENKEL et al, "Filamentous phage as vector-mediated antibody delivery to the brain", <u>Proc Natl Acad Sci USA</u> , 99(8):5675-5679 (2002)	
	BD	FRENKEL et al, "N-terminal EFRH sequence of Alzheimer's $\beta$ -amyloid peptide represents the epitope of its anti-aggregating antibodies", <u>J Neuroimmunol</u> 88:85-90 (1998)	
	BE	GARRARD et al, "Assembly and enrichment in a monovalent phage display system", <u>Biotechnology</u> , 9:1373-1377 (1991)	
	BF	GLASER et al, "Antibody engineering by codon-based mutagenesis in a filamentous phage vector system", <u>J Immunology</u> , 149:3903-3913 (1992)	
	BG	GOESSLING et al, "Enhanced degradation of the ferritin repressor protein during induction of ferritin messenger RNA translation", <u>Science</u> , 256:670 (1992)	
	BH	GRAM et al, " <i>In vitro</i> selection and affinity maturation of antibodies from a naïve combinatorial immunoglobulin library", <u>Proc Natl Acad Sci USA</u> , 89:3576-3580 (1992)	
	BI	HANAN et al, "Inhibitory effect of monoclonal antibodies on Alzheimer's $\beta$ -amyloid peptide aggregation", <u>Amyloid Int J Exp Clin Invest</u> 3:130-133 (1996)	
	BJ	HANAN et al, "Inhibitory effect of monoclonal antibodies on Alzheimer's $\beta$ -amyloid peptide aggregation", <u>Int J Exp Clin Invest</u> , 3:130-133 (1996)	
	BK	HOOGENBOOM et al, "Building antibodies from their genes", <u>Immunol Rev</u> , 130-41-68 (1992)	

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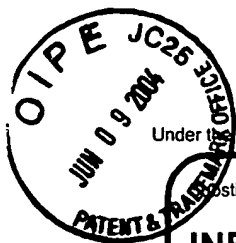
**OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS**

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	BL	HUSE et al, "Application of a filamentous phage pVIII fusion protein system suitable for efficient production screening, and mutagenesis of F(ab) antibody fragments", <u>J Immunol</u> , 149(12):3914-3920 (1992)	
	BM	HARDY et al, "The amyloid hypothesis of Alzheimer's disease: progress and problems on the road to therapeutics", <u>Science</u> 297(5580):353-356 (2002)	
	BN	HAWKINS et al, "Selection of phage antibodies by binding affinity mimicking affinity maturation", <u>J Mol Biol</u> , 226:889-896 (1992)	
	BO	HOOGENBOOM et al, "Multi-subunit proteins on the surface of filamentous phage: methodologies for displaying antibody (Fab) heavy and light chains", <u>Nucleic Acids Res</u> , 19:4133-4137 (1991)	
	BP	JANUS et al, "A $\beta$ peptide immunization reduces behavioral impairment and plaques in a model of Alzheimer's disease", <u>Nature</u> 408(6815):979-982 (2000)	
	BQ	JONES et al, "Display of antibody chains on filamentous bacteriophage", <u>Methods in Mol Biol</u> , 80:449-459 (1998)	
	BR	KANG et al, "Linkage of recognition and replication functions by assembling combinatorial antibody Fab libraries along phage surfaces", <u>Proc Natl Acad Sci USA</u> , 88:4363-4366 (1991)	
	BS	KANG et al, "Antibody redesign by chain shuffling from random combinatorial immunoglobulin libraries", <u>Proc Natl Acad Sci USA</u> , 88:11120-11123 (1991)	
	BT	LEE V, "A $\beta$ immunization: Moving A $\beta$ peptide from brain to blood", <u>Proc Natl Acad Sci, USA</u> , 98(16):8321-8932 (2001)	
	BU	MARKS et al, "By-passing immunization human antibodies from V-gene libraries displayed on phage", <u>J. Mol. Biol.</u> , 222:581-597 (1991)	
	BV	MARKS et al, "Molecular evolution of proteins on filamentous phage", <u>J Biol Chem</u> , 267:16007-16010 (1992)	
	BW	MATHISON et al, "Nasal Route for Direct Delivery of Solutes to the Central Nervous system: Fact or Fiction?" <u>J Drug Target</u> :5(6):415-441 (1998)	

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Sheet	5	of	76

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	BX	LERNER et al, "Antibodies without immunization", <u>Science</u> , 258:1313-1314 (1992)	
	BY	MacKNIGHT C, "Clinical implications of bovine spongiform encephalopathy", <u>Clin Infect Dis</u> , 32(12):1726-1731 (2001)	
	BZ	MALIK, et al, "Role of capsid structure and membrane protein processing in determining the size and copy number of peptides displayed on the major coat protein of filamentous bacteriophage", <u>J Mol Biol</u> , 260:9-21 (1996)	
	CA	MALIK, et al, "Factors limiting display of foreign peptides on the major coat protein of filamentous bacteriophage capsids and a potential role for leader peptidase", <u>FEBS Letters</u> , 436:263-266 (1998)	
	CB	McCAFFERTY et al, "Letters to nature phage antibodies: filamentous phage displaying antibody variable domains", <u>Nature</u> , 348:552-554 (1990)	
	CC	MEOLA et al, "Immunogenicity of filamentous phage displaying peptidemimotopes after oral administration", <u>Vaccine</u> , 15:1276-1285 (1997)	
	CD	MORGAN D et al, "A $\beta$ peptide vaccination prevents memory loss in an animal model of Alzheimer's disease", <u>Nature</u> 408(6815):982-985 (2000)	
	CE	MOTTI et al, "Recognition by human sera and immunogenicity of HbsAg mimotopes selected from an M13 phage display library", <u>Gene</u> , 146:191-198 (1994)	
	CF	NICHOLLS P, "Work on weapons adds to public distrust of science", <u>Nature</u> 416:677 (2002)	
	CG	PAN et al, "Antibodies to $\beta$ -amyloid Decrease the Blood-to-Brain Transfer of $\beta$ -Amyloid Peptide",	
	CH	PASQUALINI et al, "In Vivo Selection of Phage-display Libraries" in <u>Phage display: a laboratory manual</u> (eds. Barbas et al) (Cold Spring Harbor Laboratory Press, Cold Spring Harbor, New York, 2000), pp. 22.1-22.24	
	CI	PASQUALINI et al, "Tissue targeting with phage peptide libraries", <u>Mol Psychiatry</u> 1:421-423 (1996)	

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	CJ	PERUTZ et al, "Amyloid fibers are water-filled nanotubes", <u>Proc Natl Acad Sci</u> 99(8):5591-5595 (2002)	
	CK	RENAULD-MONGENIE et al, "Induction of mucosal immune responses against a heterologous antigen fused to filamentous hemagglutinin after intranasal immunization with recombinant <i>Bordetella pertussis</i> ", <u>Proc Natl Acad Sci USA</u> , 93:7944-7949 (1996)	
	CL	PIROUDIN et al, "A Vascular Connection to Alzheimer's Disease", <u>Microcirculation</u> 8(4):207-220	
	CM	SCHENK et al, "Letters of nature immunization with amyloid- $\beta$ attenuates Alzheimer-disease-like pathology in the PDDAPP mouse", <u>Nature</u> , 400:173-177 (1999)	
	CN	SCOTT et al, "Searching for peptide ligands with an epitope library" <u>Science</u> 249(4967):386-390 (1990)	
	CO	SIPE JD, "Amyloidosis", <u>Annu Rev Biochem</u> 61:947-975 (1992)	
	CP	SMITH, "Surface presentation of protein epitopes using bacteriophage expression systems", <u>Cur Opin Biotechnol</u> , 2:668-673 (1991)	
	CQ	SOLOMON et al, "Monoclonal antibodies inhibit <i>in vitro</i> fibrillar aggregation of the Alzheimer $\beta$ -amyloid peptide", <u>Proc Natl Acad Sci USA</u> , 93:452-455 (1996)	
	CR	SOLOMON et al, "Disaggregation of Alzheimer $\beta$ -amyloid by site-directed mAb", <u>Proc Natl Acad Sci USA</u> , 94:4109-4112 (1997)	
	CS	SOLOMON et al, "Vaccination for the prevention and treatment of Alzheimer's disease", <u>Drugs of Today</u> , 36:655-663 (2000)	
	CT	SOLOMON, "Immunotherapeutic Strategies for Prevention and Treatment of Alzheimer's Disease", <u>DNA and Cell Biology</u> 20(11):697-703 (2001)	
	CU	SOLOMON et al, "Generation and brain delivery of anti-aggregating antibodies against $\beta$ -amyloid plaques using phage display technology", <u>J Neural Transm</u> 61(S):321-325 (2002)	

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	CV	SOMERVILLE et al, "Immunodetection of PrP <sup>Sc</sup> in spleens of some scrapie-infected sheep but not BSE-infected cows", <u>J Gen Virol</u> , 7:2389-2396 (1997)	
	CW	SPOONER et al, "The generation and characterization of potentially therapeutic A $\beta$ antibodies in mice: differences according to strain and immunization protocol", <u>Vaccine</u> 21:290-297 (2002)	
	CX	VERMA et al, "Gene therapy -- promises, problems and prospects", <u>Nature</u> 389(6648):239-242 (1997)	
	CY	WETZEL, "Commentary learning from the immune system laboratory methods for creating and refining molecular diversity in polypeptides", <u>Protein Eng</u> , 4:371-374 (1991)	
	CZ	WILLIS A, "Immunological properties of foreign peptides in multiple display on a filamentous bacteriophage", <u>Gene</u> 128(1):79-83 91993)	
	DA	YANKER BA, "The pathogenesis of Alzheimer's disease. Is amyloid beta-protein the beginning or the end?", <u>Ann N Y Acad Sci</u> , 924:26-28	
	DB	ZEBEDEE et al, "Human combinatorial antibody libraries to hepatitis B surface antigen", <u>Proc Natl Acad Sci USA</u> , 89:3175-3179 (1992)	
	DC	Elan Internet Press Release, "Elan and AHP provide an update on the phase 2A Clinical Trial of AN-1792", January 18, 2002 (www.elan.com/NewsRoom)	
	DD	Elan Internet Press Release, "Elan and Wyeth provide update on status of Alzheimer's collaboration", March 1, 2002 (www.elan.com/NewsRoom)	

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